

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027769**Date Inspected:** 14-Jun-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Steve Jensen and William Sherwood			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	SAS Tower		

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13W-W2.1 @ 10100 Y=4300mm to Y=5500mm top deck drop-in plate inside, QA randomly observed ABF certified welder Mike Jimenez continuing to perform 4G (overhead position) Shielded Metal Arc Welding (SMAW) back welding cover pass on the CJP SPCM splice butt joint. The welder was utilizing 3.2mm diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS)

ABF-WPS-D15-1040C-CU. The joint being welded had a single V-groove butt joint with copper plate backing bar that was originally welded from the top using a combination of SMAW and Submerged Arc Welding (SAW) then removed the copper backing plate using carbon air arc gouging and ground smooth. The plates were preheated to more than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System prior welding. Welding parameters were monitored by ABF/QC William Sherwood. QA noted the working welding parameters of 132 amperes on the 3.2mm diameter E7018H4R electrode. The workmanship and appearance of the completed cover pass deemed satisfactory. At the end of the shift, cover pass back welding on area mentioned above was still continuing and should remain tomorrow.

At OBG 13W-W2.8 @ 12570 Y=2500mm to Y=3500mm top deck drop-in plate inside, QA randomly observed ABF certified welder Jeremy Dolman perform 4G (overhead position) Shielded Metal Arc Welding (SMAW) back welding cover pass on the CJP SPCM splice butt joint. The welder was utilizing 3.2mm diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040C-CU.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The joint being welded had a single V-groove butt joint with copper plate backing bar that was originally welded from the top using a combination of SMAW and Submerged Arc Welding (SAW) then removed the copper backing plate using carbon air arc gouging and ground smooth. The plates were preheated to more than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System prior welding. Welding parameters were monitored by ABF/QC William Sherwood. QA noted the working welding parameters of 128 amperes on the 3.2mm diameter E7018H4R electrode. The workmanship and appearance of the completed cover pass deemed satisfactory. At the end of the shift, cover pass back welding on area mentioned above was still continuing and should remain tomorrow.

At OBG 13E-PP122-E2.1-BF1 drop-in floor beam, QA randomly observed ABF certified welder Steve Davies perform 1G (flat position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on the CJP flange splice butt joint. The welder was utilizing 3.2mm diameter E7018H4R on the root and fill pass implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040A. The joint being welded has a single V with 45 degree inclusive angle butt joint that has the top of a vertical plate right below the V groove that serves as the backing bar. The plates were preheated to more than 150 degree Fahrenheit using propylene gas torch prior welding. Welding parameters were monitored by ABF/QC William Sherwood. QA noted the welding working parameter of 126 amperes on the 3.2 diameter E7018H4R electrode. The workmanship and appearance of the completed cover pass deemed satisfactory. At the end of the shift, SMAW fill pass welding on the splice butt joint mentioned above was completed.

FW Spencer:

At location Panel Point PP105 to PP109 of OBG grid line W5, this QA randomly observed FW Spencer qualified welder Damian Llanos continuing to perform Complete Joint Penetration (CJP) 6G (all position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on the field splice butt joint of 2.5" domestic water line at panel point location PP105 to PP109. The system line being welded is field weld joints along the grid line of W5 of the OBG. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and followed by fill pass to cover pass using 3/32" diameter E7018H4R electrode implementing Caltrans approved procedure FW Spencer WPS 1-12-1. The welder was noted preheating and removing the moisture of the joint using a portable gas torch prior welding. During welding, ABF QC Steve Jensen was noted monitoring the parameters of the welder. At the end of the shift, the welder has completed the following splice butt joints;

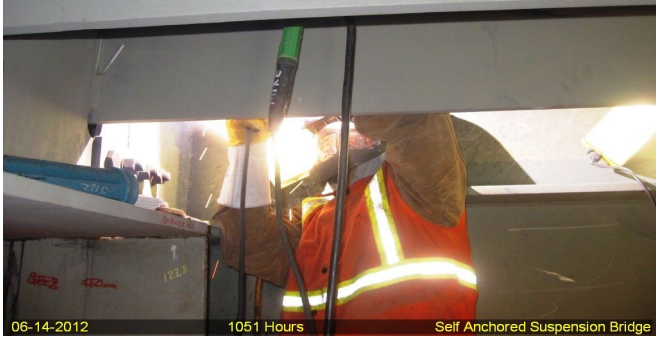
Line Service Line/Pipe Size Panel Point Location Joint Designation

1. Domestic Water 2 1/2" 105 Northeast 35/2.5/105/NE
2. Domestic Water 2 1/2" 107 Northeast 36/2.5/107/NE
3. Domestic Water 2 1/2" 109 Northeast 36.5/2.5/109/NE

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

At OBG 13W-W2.1 @ 10100 top deck drop-in plate splice inside, ABF welder Mike Jimenez was observed performing 4G (overhead) position Shielded Metal Arc Welding (SMAW) back welding cover pass on splice joint.



At OBG 13W-W2.8 @ 12570 top deck drop-in plate inside, ABF welder Jeremy Dolman was observed performing 4G (overhead) position Shielded Metal Arc Welding (SMAW) back welding cover pass on splice joint.



At OBG 11E-RP105 grid line E5, FW Spencer welder Damian Llanos was observed performing 6G (overhead) position Shielded Metal Arc Welding (SMAW) CJP welding pipe field splice of domestic water line.



Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer